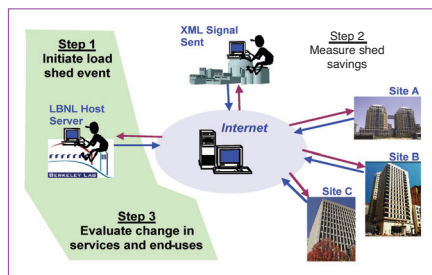


DEMAND RESPONSE

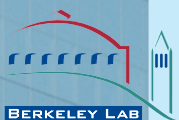
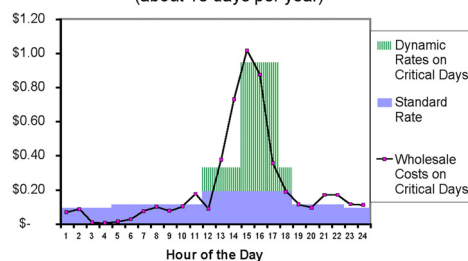
Demand Responsive Technology Demonstrations for Large Commercial and Institutional Buildings

Lawrence Berkeley National Laboratory is conducting case studies and demonstrations for the **California Energy Commission** to evaluate and assess demand-response technologies in large commercial and institutional buildings. The study is focusing on evaluating the performance of such technologies in 4 to 6 sites. These sites will be selected such that a wide range of facilities and state-of-the-art technologies will be covered. A unique aspect of the project is that a real-time "signal" will be developed for use at all of the demonstration sites. Actual response of the facilities will be documented and analyzed. The shedding control will be fully automated with no "operator in the loop". LBNL will essentially initiate the sheds at each building by sending an XML-based price signal.



California is currently investigating the use of "dynamic pricing" tariffs as a long-term sustainable strategy for mitigating the occasional supply-demand imbalances that can result in high prices and forced outages. Such tariffs would offer rate discounts when system conditions are normal—i.e. the vast majority of the time—and charge higher rates during contingencies or wholesale price spikes. A hypothetical example of one type of dynamic rate, called a "Critical Peak Pricing" or CPP rate, is shown in the graph.

**E-19 Hourly Price of Electricity
on Critical Summer Weekdays**
(about 10 days per year)



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